WE CLAIM:

1. A method of identifying embryonic or fetal red blood cells in a sample containing maternal blood cells and embryonic or fetal red blood cells or both, the method comprising determining which cell or cells contain or express an adult liver component that is a cell surface exposed component, wherein the adult liver component is not transferrin receptor, the method comprising the steps of:

(a) contacting the sample with a reagent that specifically binds the adult liver component;

(b) allowing the reagent to bind to the adult liver component; and

(c) identifying the embryonic or fetal red blood cells by virtue of being bound to the reagent.

2. A method of isolating embryonic or fetal red blood cells from a sample containing maternal blood cells and embryonic or fetal red blood cells or both, the method comprising determining which cell or cells contain or express an adult liver component that is a cell surface exposed component, wherein the adult liver component is not transferrin receptor, the method comprising the steps of:

(a) contacting the sample with a reagent that specifically binds the adult liver component;

(b) allowing the reagent to bind to the adult liver component; and

(c) isolating the embryonic or fetal red blood cells by virtue of being bound to the reagent.

3. A method according to Claim 1 or 2 wherein the sample is a sample of blood from a pregnant female.

4. A method according to Claim 3 wherein the pregnant female is a human female and the sample is taken in the first trimester.

5. A method according to Claim 1 or 2 wherein the embryonic or fetal red blood cell is of the nucleated megaloblastic series.

6. A method according to Claim 1 or 2 wherein the component is a protein.

7. A method according to Claim 1 or 2 wherein the component is present, when compared to embryonic or fetal red blood cells, at less than 1 percent on a per-cell basis in maternal cells of the maternal blood.

8. A method of identifying embryonic or fetal red blood cells in a sample containing maternal blood cells and embryonic or fetal red blood cells or both, the method comprising determining which cell or cells contain or express a component selected from the group consisting of glucose transporter 2 (GLUT2), a P-glycoprotein, a multi-drug resistance protein (MDRP), a multi-drug resistance-like protein (MRP), γ-glutamyl transpeptidase, a lipoprotein receptor, an alkaline phosphatase, a bile salt transporter, a hormone receptor, a multiple organic ion transporter (MOAT), a bilirubin transporter, and a bilirubin conjugate transporter, the method comprising the steps of:

(a) contacting the sample with a reagent that specifically binds the component;

(b) allowing the reagent to bind to the component; and

(c) identifying the embryonic or fetal red blood cells by virtue of being bound to the reagent.

9. A method of isolating embryonic or fetal red blood cells in a sample containing maternal blood cells and embryonic or fetal red blood cells or both, the method comprising isolating the cells which contain or express a component selected from the group consisting of glucose transporter 2 (GLUT2), a P-glycoprotein, a multi-drug resistance protein (MDRP), a multi-drug resistance-like protein (MRP), γ-glutamyl transpeptidase, a lipoprotein receptor, an alkaline phosphatase, a bile salt transporter, a hormone receptor, a multiple organic ion transporter (MOAT), a bilirubin transporter, and a bilirubin conjugate transporter, the method comprising the steps of:

(a) contacting the sample with a reagent that specifically binds the component;

(b) allowing the reagent to bind to the component; and

(c) isolating the embryonic or fetal red blood cells by virtue of being bound to the reagent.

10. A method according to Claim 1 or 2 wherein said sample is contacted with a binding moiety which moiety binds to said adult liver component and said embryonic or fetal cell is identified in or isolated from the sample by virtue of being bound to the binding moiety.

11. A method according to Claim 1 or 2 wherein said sample is contacted with a substrate for an enzyme, the enzyme being an adult liver component, and the embryonic or fetal cell is identified in or isolated from the sample by virtue of the product formed by action of the enzyme on the substrate.

12. A method according to Claim 10 wherein the binding moiety is an antibody or fragment or derivative thereof.

13. A method of isolating embryonic or fetal red blood cells from a sample according to Claim 12 wherein the binding moiety is immobilized to a solid support.

14. A method according to Claim 10 wherein the binding moiety is detectably labeled or is capable of detection.

15. A method of isolating embryonic or fetal red blood cells from a sample according to Claim 14 wherein the label facilitates isolation of the cells.

16. A method according to Claim 11 wherein the product is fluorescent or colored.

17. A method of determining a fetal abnormality, the method comprising identifying or isolating fetal or embryonic cells according to the method of Claim 1 or 2 and analyzing the embryonic or fetal cell for the fetal abnormality.

18. A method according to Claim 17 wherein the fetal cell abnormality is determined by analyzing genetic material.

19. A method according to Claim 18 wherein chromosomal abnormalities are detected.

20. A method according to Claim 18 wherein mutations in the DNA are detected.

21. A kit for determining a fetal abnormality comprising:

(a) means for determining whether a cell contains or expresses a fetal liver component; and

(b) means for analyzing a cell for an abnormality.

22. A method according to Claim 17 wherein the sample is contacted with a binding moiety which moiety binds to the adult liver component and the embryonic or fetal cell is identified in or isolated from the sample by virtue of being bound to the binding moiety.

23. A method for determining whether a cell contains or expresses an adult liver component for identifying or isolating an embryonic or fetal red blood cell, the method comprising detecting the adult liver component or an enzymatic product of the adult liver component.